

ENTOMOLOGY.—*Some neotropical and oriental syrphid flies in the United States National Museum.*<sup>1</sup> FRANK M. HULL, University of Mississippi. (Communicated by C. F. W. MUESEBECK.)

Several years ago the late Dr. J. M. Aldrich, to whom the writer owed much encouragement in his early studies of diptera, submitted an accumulation of exotic syrphid flies to the writer for study and identification. This material is almost entirely Neotropical in origin, although a certain amount of it comes from the Orient. It was later supplemented by material from the same regions, kindly made available for study by Dr. E. A. Chapin, to whom the writer is greatly indebted for extending the fullest facilities of the Museum. Finally, I wish to thank Mr. C. T. Greene for his helpful suggestions. The present paper presents the undescribed species of syrphids, the types of which are in the U. S. National Museum.

*Volucella nitidigaster* n. sp.

*Male*.—Eyes densely long black pilose, touching for a distance of length of antennae, with a bare horizontal band about the middle of each eye. The vertex, the greatly swollen front, face and cheeks brilliantly vitreous black, a small whitish pubescent area beneath the antennae, narrowly prolonged to each eye and on the eye margin intensified and slightly enlarged. There is a narrow brown stripe dividing cheeks and face, beginning at eye but not reaching the oral margin. Antennae, dark brown; arista pale, darker at apex, twenty to twenty-one rayed above. Tubercle of the short obconical face large, evenly rounded.

Thorax, scutellum, pleurae and abdomen strongly shining black with a bluish opalescent tinge. The thorax with a narrow anterior band of fairly long upright brassy pile, the remainder of the dorsum with short brassy pile obscured by dense long erect black pile. The lateral and calli bristles appear to be exceptionally long, stiff, shining black. Pile of mesopleurae long and brassy. Scutellum rather higher than usual, the margin without a definite depression but barely flattened at the apex on a small area, where it is also punctate or roughened. Scutellum conspicuous for the thick mass of long black pile on its dorsum basally, in the middle. Squamae black, with brassy fringe. Halteres ivory white. Abdomen with faint suggestion of a brownish area on either side on second and third segments.

Legs vitreous shining black, the mid and hind tarsi except terminal two joints dark brown.

Wings tinged on anterior joints with yellow. Stigma dark brown. Stigma cell light brown.

Length 6 mm.

One male. Villa Nogue, Pov. Tug. (R. A.) (1-1921)

Type in the U. S. National Museum, No. 51352.

*Volucella punctigena* n. sp.

*Female*.—Front and vertex, except for a shining black trifurcate spot above antennae and face, except for an obscure spot on either side just below

<sup>1</sup> Received January 16, 1937.

antennae, shining mahogany red and polished. The angle across from eyes at antennae, and the cheeks pale brownish yellow. The yellow of the cheeks is bordered behind and in front with a shining black stripe. Facial knob prominent and face descending to a distance below eyes equal to length of antennae from base to tip of arista. Antennae and arista light brownish yellow, the apical third of the latter blackish, with twenty-two to twenty-five rays dorsally. Eyes short pale pilose. Pile of head and face pale.

Thorax shining dark reddish brown, the whole middle anterior three-fourths shining jet black, its posterior margin produced as four vittae, their ends rounded, the outer pair the farthest, none reaching the scutellum. Pleurae blackish, the margins of some segments brownish. Scutellum light reddish brown shining, subtranslucent. Squamae and fringe pale brown. Halteres snow white. Scutellum with a deep depression, its base smooth, a few long black bristles on the margin.

Abdomen flattened, almost round, dark blackish in color, the disk of second, third and fourth segments purplish reddish, and the base of the second segment with two small pale yellow translucent triangles, their median and basal edges straight and forming a right angle. The pile of the abdomen short, very thick, whitish, quite erect.

Legs largely shining black, narrow apices of femora, basal half or third of tibiae and tarsi light brownish. Pile of legs black.

Wings strongly tinged with brown, especially on the veins and cross veins. Length 9 mm.

One female. Siquinola, Guatemala.

Type in the U. S. National Museum, No. 51348.

#### *Volucella albipilosa* n. sp.

*Male*.—Eyes densely long white pilose, touching for the length of the antennae. Vertex, the swollen front, face, lower occiput and cheeks, except for a narrow shiny brown stripe from eye to oral margin, pale yellowish brown. Ocelli on a slightly raised blackish area. Pile of vertex and front thick, black, longer than that of the eyes. Face and cheeks with a few scattered black hairs on the upper middle of the former and upper posterior corners of the latter; elsewhere pale, appressed, brassy. Occiput from middle downward, long, white pilose, the whole densely punctate white pubescent. Antennae reddish brown, the third joint rounded, slightly concave above. Arista brown with twenty-five rays above. Face descending vertically below antennae to a faint tubercle, thence receding very slightly to the cone shaped tip of the epistoma.

Thorax largely and scutellum wholly shining light yellow brown, the anterior half of thorax with a large shining black spot, indented posterior-medially, and with a posteriorly directed continuation at each posterior corner. On the black area may be seen two short broad whitish pollinose vittae situated anteriorly. Pleurae shining black below, light brown above, its pile long and crinkly, pale, with a few tufts of black hairs. Pile of thorax long, anteriorly and narrowly at base of scutellum pale in color, elsewhere black. Lateral margins of thorax including humeri and post calli with several long black bristles, but none before the scutellum or on its margin. Scutellum without depression. Squamae and its fringe and stem of halteres dark brown; knob of the latter white.

Abdomen, its margin inrolled, almost entirely light reddish brown, the narrow posterior edge of the third segment, and apico median triangle, a very small basi median triangle on the second segment and the suggestion

of a narrow connecting vita black or blackish. First segment blackish. Venter the same light brownish color. The whole abdomen subtranslucent. The pile consists of conspicuous long white appressed tufts in each anterior angle of the third and fourth segments, and the very long erect surface pile of the fourth segment. Abdomen everywhere covered with short appressed black bristles.

Legs dark brown to blackish, black pilose or bristly, except that the tibiae posteroventrally and the tarsi ventrally are appressed golden pilose. Extreme apices of femora paler in color.

Wings hyaline, except for stigma, with four quite small dark brown spots on the cross veins in the middle of the wing.

Length 15 mm.

One male. San Martin, Mexico, May 27, 1922 (E. G. Smyth).

Type in the U. S. National Museum, No. 51357.

#### *Volucella lunulifera* n. sp.

*Male*.—Eyes densely long blackish pilose, widely touching. The small vertex swollen, the front and face and cheeks brilliantly vitreous black, a little silver pubescence beneath the antennae, a small spot of yellowish brown, triangular in shape near the eye margin of either side just below the level of the antennae, and a similarly colored narrow stripe dividing face and cheeks, beginning at the eyes and running to oral margin. Pile of face, cheeks, occipital and front pale whitish; of vertex black. The face does not descend very deeply. It is bluntly obconical and the tubercle is large, oval and evenly rounded. Antennae dark brown. Arista paler, fifteen rayed above.

Thorax shining black, in places purplish and bluish opalescent. The scutellum shining vitreous black with a brassy cast, the marginal depression deep and conspicuous. Pile of thorax abundant, rather long, upright, pale brassy, with a few longer slender black hairs intermixed especially before the scutellum. Scutellum basally and marginally pale, the long marginal bristles black. Pleurae black, golden pubescent above, pale pilose. Squamae dark with blackish fringe, halteres pale yellow.

Abdomen shining black with an opalescent cast, with sharply defined pale yellow basal spots on the second segment, narrowly medially, oval on its posterior edge, i.e., subtriangular, and prolonged laterally part of the way down the sides. Third segment with similarly colored very small spots on anterior corners; fourth with a narrow lateral marginal stripe. Abdominal pile entirely erect, pale.

Legs shining black, very narrow apices of femora and bases of tibiae and the tarsi brown.

Wings hyaline, brownish anteriorly and an apical half, cross veins clouded, the stigma brown and the stigmal cell yellow.

Length 7.5 mm.

One male. Iquitos, Peru, Mar.—Apr. 1931 (R. C. Shannon).

Type in the U. S. National Museum, No. 51355.

#### *Volucella cubomaculata* n. sp.

*Female*.—Eyes very short pale pubescent. Front and vertex shining black, vitreous. The face and cheeks light clay brown or yellow, in the middle of the face with a narrow dark brown stripe from oral margin to antennae; a similar stripe, lighter in color, separating cheeks and face from eye to oral

margin, and another between cheeks and occiput. Face rather pointed, tubercle quite low, evenly rounded, not deeply excavated above. Antennae light reddish brown, arista darker, twenty-four rayed above.

Side of dorsum of thorax, pleurae, scutellum, except its margin darker, all light yellowish brown. The dorsum in the middle dark blue black, opalescent, with coppery lights. Bristles, including those of scutellum where the apical two are most prominent, and the prescutellar row, all black.

Pile of thorax exceptionally short, of quite appressed, brassy color; on the pleurae a little longer but similarly colored pile. A few short black hairs on scutellum. Squamae dark brown with brown fringe; halteres ivory knobbed.

Abdomen with first segment entirely and basal two-thirds of second pale subtranslucent yellowish brown. Third and fourth segment each with a pair of basal yellow spots not reaching the sides, widely separated medially, the last pair rather cubical in shape, the first pair more irregular in outline. Elsewhere the abdomen is shining blackish.

Legs dark brownish black, black pilose, all the femora a lighter shade of brown.

Wings with apical two-fifths grey or smoky, not diagonally marked, the basal part of the wing yellowish, the stigmal cell brownish grey.

Length 8 mm.

One female. Iquitos, Peru, Mar.-Apr. 1931 (R. C. Shannon).

Type in the U. S. National Museum, No. 51353.

#### *Volucella lumina* n. sp.

*Female*.—Eyes densely pale, short pilose. Front above antennae light brown, above and on vertex very dark brownish red, a median stripe black, everywhere shining. Face and anterior part of cheeks pale brownish yellow or clay yellow, vitreous, a narrow median stripe of reddish brown reaches from oral margin to antennal base, and a similar stripe separates cheeks and face and is followed by the same color on the posterior section of the cheeks. Occiput pale, very pale punctate-pollinose, and its pile pale. Short pile of front and vertex black and the whole top of the very large obtuse tubercle densely short black bristly. Face deeply excavated below antennae. Face short obconical. Antennae dark reddish orange infuscated apically. Arista pale, thirty-one to thirty-three rayed above.

Thoracic dorsum on the sides light brown, in the center widely black with a very strong bluish and coppery opalescence. Scutellum light brown, subtranslucent, opalescent. Pile of thorax short, brassy, subappressed, on the posterior half mixed with some black pile. Black lateral, scutellar and prescutellar bristles greatly strengthened and exceptionally long, at least as long as the scutellum in midline. Squamae pale brown with darker fringe. Halteres ivory white with brownish stalk. Pleurae brown, densely clothed in middle with long appressed brassy hairs.

Abdomen shining black with bluish opalescence on the base of the second segment with a pair of large, sharply graduate yellow, translucent spots, divided medially by a little less than their own thickness. Abdomen somewhat denuded but with both black and brassy hairs.

Legs everywhere very dark reddish brown appearing practically black, clothed with jet black bristles and pile. Wings much larger than abdomen, on outer diagonal half dark brownish; the brown widest posteriorly, the basal half of wing yellowish; all the veins brown.



Length 12 mm.

One female. Ramupasa, Bolivia, December (W. M. Mann) (Mullford Biological Expedition).

Type in the U. S. National Museum, No. 51349.

#### *Microdon aurifacia* n. sp.

*Male*.—Head shining black except on the sides of the face where it is dark mahogany brown. Face with abundant pale brassy pile directed downward, glittering. Occiput with similar but scanty pile. Vertex and front black pilose, a few pale hairs above the frontal depression. Antennae very long and slender, the first joint as long as second and third, the third five times as long as second. Arista concolorous, shorter than third joint. Eyes scanty, short pubescent below. There is a narrow bare vertical non pilose stripe on the face.

Thorax shining black, the anterior half covered with short appressed pale brassy pile, very dense and startlingly brilliant from in front. Posterior half with similarly appressed black pile. Pleurae dark mahogany colored, black pilose. Scutellum shining black with two very stout black spines, set fairly wide apart, at outer angles of scutellum, reddish in color, and cloaked with black pile. Scutellum deeply sulcate medially and about twice as wide as long in the sulcate midline.

Abdomen shining black, thick short, apically pointed, with flared basal margins on the second segment, its pile through the middle and on the lateral margins short appressed, pale, brassy; elsewhere black.

Legs, except the mahogany brown tarsi, entirely black; black bristly except on the ventral surface of all the tarsi, where it is golden brown, almost reddish. Posterior basitarsi flattened but not exceptionally large or thickened.

Wings smoky, especially on the apical half. A stump of a vein protrudes into the first posterior cell from the third longitudinal vein.

Length 15 mm.

Two males, one female. Itaquaquecetuba, Peru, Nov. 18 and Sept. 20. The female lacks the pale brassy pile, which is evidently a sexual character.

Type in the U. S. National Museum, No. 51370.

#### *Allograpta flavomaculata* n. sp.

*Male*.—Related to *Sphaerophoria micrura* O. S. The head bears a wider stripe of black on the face and front. The slant from oral margin medially to cheeks and occiput is greater, and the pile of the upper occiput is black in *flavomaculata* and white in *micrura*. Scutellum with a well marked hemi-circle of black in the center. The scutellum of *micrura* is entirely pale. However, there are differences in the markings of the abdomen which are here described.

First segment with a very small yellow spot in the anterior basal corners of the segment. Second with a narrowly interrupted band in the middle of the segment, the band reaching the side margins, the median interruption short, that is, the inner ends of each spot, drawn out and tapering to an abrupt point. Third segment with a similar band, not interrupted, widest just back of lateral margin, the median area pointed sharply above and below, as if the band had been interrupted and bridged by a small oval longitudinal spot. Fourth segment with a still wider band practically as thick in the middle as near the sides. The outer third of this and the pre-

ceding band is directed posteriorward at an angle of forty-five degrees. Last segment with four small yellow spots, the inner pair sub-triangular, the right angle basal and medial.

Length 9 mm.

One male. Bogota, Colombia (B. Guevara, coll.)

Type in the U. S. National Museum, No. 51375.

#### *Meromacrus vittata* n. sp.

*Female*.—Vertex, middle stripe of front, shining black, the sides of the front long, yellow tomentose, the shining black face and cheeks obscured by pale whitish pollen, and long white pile. Occiput silvery pollinose, pale pilose. A few black hairs on vertex. Eyes bare. Antennae reddish brown, the dorsal edge of third joint blackish. The arista pale yellow with brownish tip.

Thorax obscurely shining black, with three very sharp continuous greyish yellow vittae, confluent just before the scutellum, and another on either side on the posterior half which does not reach beyond the suture. On the outer edge of the suture, and on the humeri, a conspicuous tuft of bright yellow tomentum. Pile of thorax and scutellum long, dense and yellow, the ground color of the latter pale brownish yellow subtranslucent. Squamae and halteres pale brownish yellow, the latter with a dark annulus on the stalk.

Abdomen shining black, metallic, the first segment grey dusted in the middle. The second third, fourth and fifth segments with narrow opaque yellow posterior margins, and the fourth post marginally with a reddish brown border or spot, not reaching the sides. Pile of abdomen extraordinarily appressed, except on the side margins, all pale in color. Legs entirely light reddish orange, pale pilose, the only black vestiture being the basi-spinules on the hind femora.

Wings hyaline; anterior margin pale brownish, the extreme base strongly orange brown.

Length 10.5 mm.

One female. Villa Nougés, Tug., Jan. 1929 (R. A.).

Type in the U. S. National Museum, No. 51953.

#### *Meromacrus lineascripta* n. sp.

*Male*.—Eyes bare, narrowly touching. Vertex raised and swollen. Ground color of head, except beneath facial stripe, shining black, the lower vertex, very narrow sides of front, and the face broadly, except for the wide bare middle stripe, and the cheeks narrowly along the posterior eye margins, all pale whitish pubescent or pollinose. The pile of the vertex is black. Elsewhere on the face it is snow white. Antennae dark greyish brown, the third joint but little longer than wide, the arista wholly pale yellow.

Thorax black, obscurely shining, a very narrow midline pale yellow pubescent, and a very narrow transverse band widely separated medially and not reaching either side, a continuous, slightly wider prescutellar band, covering calli and scarcely wider in the midline. A diagonal stripe runs from base of suture along inner edge of humerus, to extreme anterior thoracic margin, all pale yellow tomentose, almost white. Humeri bare. Scutellum blackish basally and on the sides, otherwise reddish, everywhere like the thoracic dorsum, thick, appressed short black bristly. Pleurae black, heavily whitish dusted. Squamae pale with darker fringe. Halteres cream colored.

Abdomen largely pale orange, the first segment, the base of the second

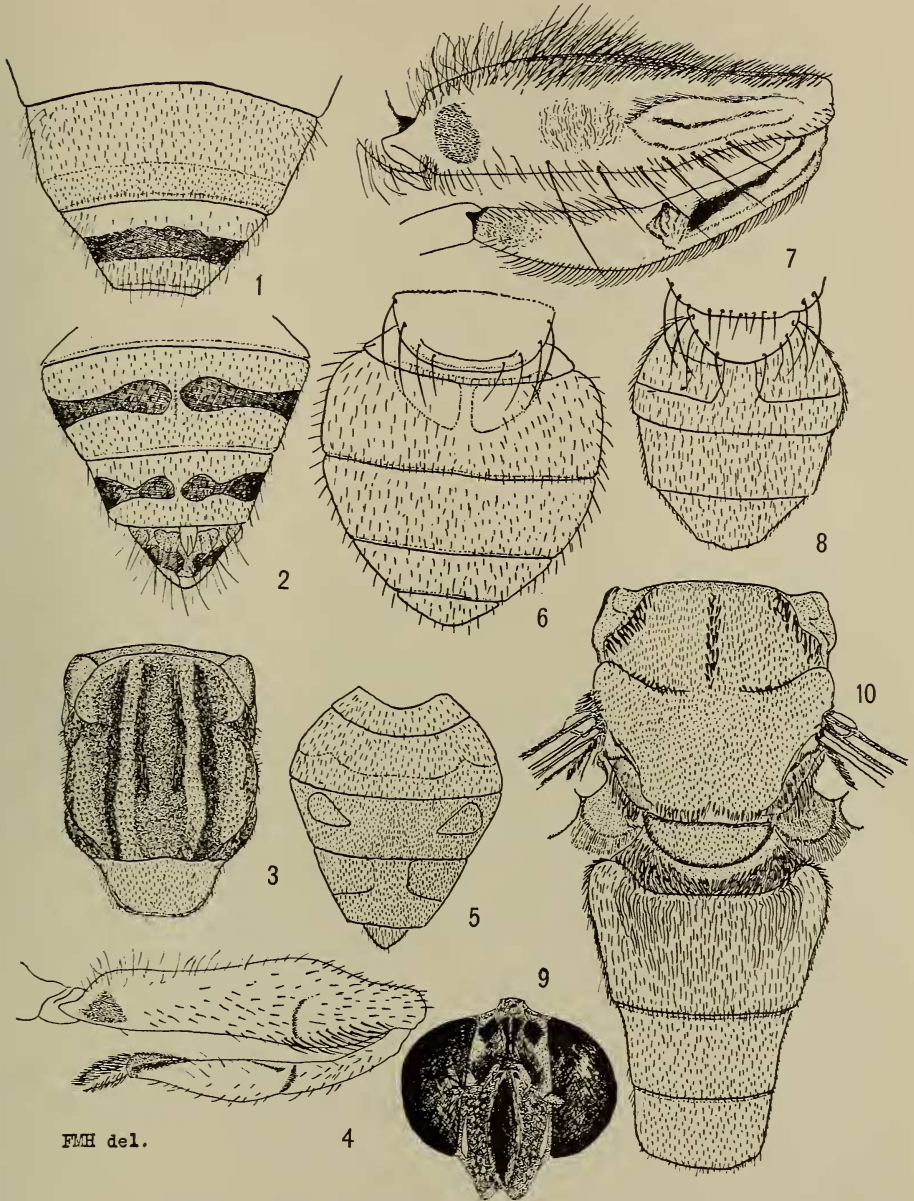


Fig. 1.—*Eristalis flavoscutellata* n. sp. (termination of abdomen). Fig. 2.—*Eristalis brevillosa* n. sp. (termination of abdomen). Fig. 3.—*Nausigaster nauseica* n. sp. (thorax). Fig. 4.—*Eristalis brevillosa* n. sp. (hind femora). Fig. 5.—*Volucella cubomaculata* n. sp. (abdomen). Fig. 6.—*Volucella punctigena* n. sp. (abdomen and scutellum). Fig. 7.—*Eristalis flavoscutellata* n. sp. (hind femora). Fig. 8.—*Volucella lumina* n. sp. (abdomen and scutellum). Fig. 9.—*Braziliansa vittithorax* n. sp. (front view of face). Fig. 10.—*Meromacrus lineascripta* n. sp. (dorsum of thorax and abdomen).



narrowly blackish. Hypogium reddish, pale dusted. The narrow posterior margins of the second, third, and fourth segments faintly shining cream color, bare. The apex of the first segment bordered conspicuously with the pale cream colored tomentum, but not reaching the sides. Outer third of second segment basally with long black hair extraordinarily appressed directed posteriorward. Remainder with many appressed short golden spinules. Pollen of hypopygium ripple-like.

All the femora thick, the hind ones extraordinarily so, the thickening of all largely basal, on the third pair flattened ventrally. Legs light brownish red, the femora darker basally, all the femora basiventrally and the last sternite with remarkably curious tufts of thick, very long, crinkly whitish pile.

Wings with anterior border brown, the costal cell yellowish.

Length 12 mm.

One male. Ivon Beni, Bolivia (W. M. Mann) (Mullford Biol. Expedition, 1921-1922).

Type in U. S. National Museum, No. 51371.

#### **Nausigaster nausicaa n. sp.**

*Female*.—Eyes bare. The raised and swollen front, the square area about the base of the antennae, a very narrow median line bisecting the golden pollinose area between the square spot and the vertex, the wide median facial vitta, and a narrow one on the cheeks from eye to oral margin, all shining steel blue. The remainder of cheeks and face, including a band below antennae, the entire occiput except just behind vertex, densely yellow pubescent (pilose) and short pale pilose. The blue area above antennae with a few pale hairs, the remainder bare. Antennae quite large, the third joint twice as wide and twice as long as the second, all bright brownish orange. Arista bare, brownish.

Thorax brilliant steel blue, slightly purplish, with four conspicuous wide stripes or vittae of pale pollen, the outer one not interrupted at the suture, all running the full length of the thorax, the angles before the suture on either side with a yellow pollinose area and the stripe enclosed by the outer and inner pollinose vittae on either side is a rich brassy color with just a suggestion of bronze. Clothing of thorax ultra microscopic, black on the dark areas, light on the vittae. Pleurae and scutellum entirely bright steel blue. Squamae pale; halteres yellow.

Abdomen largely dark steel blue, obscurely shining. The first segment and base of second dusted with whitish. The narrow posterior borders of second, and third each continuing narrowly along the side margins, the posterior margin of the fourth more widely, triangularly produced medially as a large spot, all bright golden pubescent. Abdomen everywhere microscopically short black bristly.

Legs largely very dark reddish brown, the femora apically, the tibiae basally, more blackish, all covered with pale short appressed pile, except where it becomes golden on the posterior tarsi ventrically.

Wings clear hyaline. Stigma brown.

Length 7.5 mm.

One female. Montevideo, Uruguay (Tremoleras) Dec. 20, 1930. (Penarol). A remarkable and beautiful species.

Type in the U. S. National Museum, No. 51369.



***Eristalis flavoscutellata* n. sp.**

*Female*.—Very close to *E. obscurus*. Front and vertex with black and yellow pile mixed, the former predominating. Face shining black, its pile pale. Facial knob prominent and bare. Antennae light brownish orange, dorsally blackish on the third joint. Arista reddish throughout, quite long and bare. Eyes very short whitish pilose.

Thorax and pleurae black, dully shining with long reddish yellow pile. Scutellum light brownish orange, with thick but rather short golden pile.

Abdomen large, swollen, shining black, the second segment on either side with obscure reddish, shining spots and suggestions of similar ones, but smaller, similarly placed on the third segment. Narrow posterior margins of second, third and fourth segments opaque pale yellow. Pile of second segments short, black and yellow intermixed; on third segment black; on fourth segment, except on the narrow base, entirely pale and erect. Only the black pile subappressed.

Legs with black femora, apices narrowly pale, the mid tibiae reddish, all the tarsi bright orange, orange pilose. Hind femora quite thick, shining black, with a few long pale bristles beneath and shorter thick erect black ones above. The hind tibiae black, with a dense dorsal (ventral when tibiae is adjacent to femora) fringe of black cilia.

Wings hyaline with a conspicuous quadrate brown spot in the middle.

Length 10.5 mm.

One female. Hiquito, San Mateo, Costa Rico (Pablo Schild).

Type in the U. S. National Museum, No. 51363.

***Eristalis brevivillosa* n. sp.**

*Female*.—Vertex and front considerably swollen. The ground color is obscurely shining, dark brown above, becoming quite pale brownish yellow below on face. Front, vertex, face almost entirely covered with pale brownish yellow pollen, slightly darker on vertex, almost golden on the face, and obscurely punctate on the front. The antennae are small, set below the middle of the profile, and from base to vertex the front is thickly short black pilose. The eyes are very short yellow pubescent above, and there is some brassy pile on the upper part of the face. Tubercle medium sized, slightly more shining. Occiput from just past cheeks nearly to vertex is blackish, white dusted. The upper occiput exhibits a creased margin running to the corners of the eyes. Antennae pale brownish orange, the third joint oval. One and one-half times as long as wide. Arista pale, long, slender, bare.

Thorax black, dully shining, densely brown pollinose, two or three short median vittae are suggested but obscure on the anterior half; pile thick, short, nearly erect, brassy in color, becoming reddish on the lateral margins of the dorsum where the ground color is reddish brown. Pleurae black, whitish dusted, with tufts of long golden hairs on the upper mesopleurae. Scutellum large, broad, evenly rounded. Opaque rust red or rust yellow, its dorsum thickly beset with stubby black bristly hairs, a few golden ones laterally and ventrally on the margin. Squamae very large, reddish brown, its fringe yellow; halteres light yellow.

Abdomen very dark brown almost, but not quite black; mostly opaque, but with a shining jet black band interrupted medially on the middle of the third segment; a similar maculation on the fourth, both reaching the lateral margin, and both shaped somewhat on their inner ends as exclamation marks, the lateral tips of which are also dilated. Second segment with

a pair of small obscure reddish spots. First segment basally, on either side, pale yellowish white. Fifth segment shining black in posterior half, basally with a pair of small quadrate golden pilose spots, and similar ones more irregular in outline, similarly placed on the fourth segment.

Legs largely dark vitreous reddish, mahogany colored on posterior femora, the narrow apices of the face and mid femora, the bases of all the tibiae the first four more widely, pale yellowish. The tarsi are a lighter shade of dull yellowish brown. Hind femora not greatly thickened, but widest for a short distance before apex and sharply enlarged from this end. Hind tibiae flattened, slightly arcuated, but not ciliary fringed and not spurred apically.

Wings almost hyaline, yellowish tinged. Stigma sharply dark brown in color.

Length 10.5 mm.

One female. Lima, Peru, 2000+ ft. (Piches and Perene) Soc. Geogade.

Type in the U. S. National Museum, No. 51364.

*Eristalis flavovillosa* n. sp.

*Male*.—Eyes touching. The swollen vertex, front, face and cheeks black, the latter shining, the facial knob slightly shining, the remainder densely whitish grey pubescent. Facial tubercle rounded, low, inconspicuous. Antennae dark brown, the narrow base of the third segment light brown. Arista very long, thickened on basal third, brown in color, pale apically, and bare. Vertex, upper occiput, front and upper face covered with thick long shaggy, bright yellow pile. Eyes densely short whitish pilose.

Thorax black, obscurely shining, densely brown pollinose and very densely long shaggy yellow pilose, the pile erect, plush-like, bright in color, but nowhere golden. Scutellum similarly pilose, in color pale brownish yellow, obscurely shining. Squamae and fringe and halteres light brown.

Abdomen black, obscurely shining. On the second segment with a bluish coat, the sides of that segment in the middle with a light yellow spot or triangle, its posterior border horizontal, its inner angle acute. Posterior margins of first, second, third and fourth segment narrowly opaque yellow, the bases of the third and fourth and the yellow posterior margin of the fourth with a yellowish grey opaque band, equally narrow, all of them uninterrupted. With the exception of half a dozen long black bristles on either side of posterior margin of fourth segment, the pile is everywhere erect, very long, very dense, bright yellow. The pile of the venter is still longer, and paler.

Femora, except the narrow yellowish brown apices, shining black, about the middle brown pollinose. The hinder pair moderately thickened. Fore tibiae on apical half, mid tibiae on apical sixth, hind tibiae on apical three-fifths, blackish, remainder light brownish yellow, everywhere yellow pilose, except on the apical half of the hinder pair, which is black ciliated below. Hinder tibiae somewhat arcuated and flattened. All the tarsi brown, the hind tarsi lighter, the other dark. Pile of femora yellow. Hind femora apico-ventrally with long black bristles.

Wings largely hyaline, faintly brownish, especially about the center.

Length 14 mm.

Two males. Suifu, Szechuan, China (D. C. Graham, coll.).

Type in the U. S. National Museum, No. 51952.

*Spheginobaccha melancholia* n. sp.

*Female*.—Head shining black, the sides of the face, the cheeks, the narrow lateral eye margins of the front up to where a transverse band is formed in

the depression, all shining silver pubescent. The vertex and front especially the former, remarkably swollen and tumid, evenly rounded, the eyes at the posterior angles widely excavated so that the occiput is here quite thick. Antennae situated at upper two-thirds, without prominence, the third joint dark brown, a little longer than the first two evenly rounded and bearing a black bare, basally thickened arista. Pile of head scanty, short, everywhere pale except on the vertex. Ocelli placed far forward.

Thorax black, obscurely shining, with short dense reddish brown pubescence, and suggestions of two quite narrow vittae, and an equally narrow trace of a horizontal band across the suture and not interrupted in the middle. Scutellum and pleurae similarly colored and pubescent, the latter on the lower pleurae whitish. Squamae pale yellow; halteres light brown.

Abdomen black, shining, shorter than wings, with a pale obscure yellow spot of some size on either side of the second segment near the base. Pile of the abdomen largely pale. Some appressed black bristles on posterior borders of the segments.

Legs, black, the femora very narrowly at the apices, the basal halves of all the tibiae pale yellow. Hind femora slender.

Wings uniformly dark blackish or fumose, slightly paler posteriorly. Wings everywhere black pubescent.

Length about 15 mm.

Two females. Prang Bon, 30 mi. N. W. of Saigon, Cochin China, July 19, 1932, (M. Piolane, coll.).

Type in the U. S. National Museum, No. 51372; paratype in the author's collection.

#### ***Korinchia nova* n. sp.**

*Female*.—Vertex and front, except just above antennae, black, shining the upper portion of the latter pollinose (greasy in the specimen) and the extreme lower front shining brown. Face and cheeks light yellowish brown, interrupted by a shining dark brown stripe on the anterior portion of the cheeks from eye margin to oral margin. Antennae dark brown. Third joint oval, one and a half times as long as wide, unusually large. Arista very long, bare, basally yellowish, apically white. Eyes bare. The ocelli are situated on a raised area and the width of the vertex is less than the width of the third antennal joint.

Thorax black, obscurely shining, a band across from the humeri, jutting a little way posteriorly in the middle, another band on the sutures, interrupted widely in the middle, and a prescutellar band, pale yellowish grey pollinose. Scutellum tricolored, the narrow impressed rim pale greyish yellow, the middle light brown, the base black, all except the rim shining. Pile of thorax and scutellum short, rather thick, brassy in color, slightly longer before the scutellum, and still longer on the margin of the scutellum and with curious tufts of long flattened golden pile on the sides of posterior thoracic disk and calli, directed backward. Pleurae dark brown, largely bare, with a vertical stripe of pale pollen, pale pilose up the middle. Squamae whitish with yellow border. Halteres brownish yellow.

Abdomen black, obscurely shining, the lateral margins everywhere narrowly reddish and a triangular spot on the basal angles of the second segment narrowly meeting medially. The short dense bristles of the abdomen appressed, black on the black areas except that the basal borders of each segment are narrowly golden bristly. All segments including the first, with a

narrow posterior, opaque yellow pollinose border, golden appressed bristly. Side margin of abdomen with short brassy pile.

Legs largely pale yellow, waxy in appearance, except fore tarsi and tibiae blackish, the latter with postero-lateral hemicircle of pale yellow in the middle. Pile of legs short, largely pale. The hind femora apically, particularly beneath, black bristly, a few black bristles on the posterior tarsi, the anterior pair entirely so. Hind femora slightly infuscated postero-medially, quite slender, without tooth or spicules.

Wings nearly hyaline slightly yellowish basally. Stigma pale yellow.

Length 12 mm.

One female. Ningyuenfu, China (D. C. Graham, coll.).

Type in the U. S. National Museum, No. 51360.

#### *Braziliana vittithorax* n. sp.

*Female*.—Vertex quite swollen, brilliant shining metallic steel blue. Ocelli bright red. Eyes widely apart, bare. Whole face, where not pollinose, shining steel blue, glittering. The pollinose band of the face is ripple-like with large bare punctate spots, the outer margin of the metallic stripe coppery. Front across the middle black pollinose, trimaculate, leaving along each eye margin above and below the antennae, three whitish semi-oval pollinose spots. A conspicuous depression or trough transversely before scutellum. Facial pile pale. Vertical and upper frontal pile black, everywhere scanty. Antennae light brownish, blackish apically. First joint as long or longer than second and third; third pointed. Arista a little longer than third joint, basally pale.

Thorax opaque black trivittate, the outer vittae as broad wedges directed acutely backward, not proceeding past the suture anteriorly; the median one narrow, running full length; all three vittae confluent before the scutellum. Ground color on mid-dorsum steel blue, shining, whitish dusted anteriorly and around the shining anterior thoracic tubercle. Pleurae silver dusted except on the totally bare and brilliant pteropleurae (anterior part only). Scutellum shining metallic blackish. Squamae white with blackish border. Halteres brownish yellow.

Abdomen brownish black, a pair of oval, yellowish spots, pointed at either end, diagonally placed on the third segment, touching only the basal margin and widely separated. Suggestions of similar spots on the fourth and fifth segments which cannot be made out very definitely. Abdominal pile very short, scanty, pale.

Legs pale brownish yellow, the mid-femora, except narrow apex, the apical two-thirds of slightly thickened hind femora, and distal posterior tarsi blackish.

Wings hyaline, stigma brown.

Length 8 mm.

One female. Antigua, Guatemala, June 17, 1923 (E. G. Smyth).

Type in the U. S. N. M. No. 51376.